

### REMARKS

Applicants and the undersigned wish to thank the Examiner for careful consideration given this Application. Claims 1, 3, 5-20 are pending in this application. No amendments to claims are submitted at this time.

#### Response to Rejections Under 35 U.S.C. 103(a)

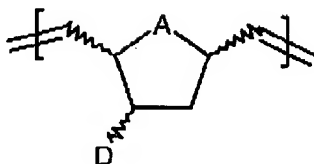
Claims 1 and 3-12 and 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 02/14376 to Hoveyda et al. (hereinafter "Hoveyda"), in view of U.S. Patent No. 5,854,299 to Muhlebach et al. (hereinafter "Muhlebach").

The Examiner is reminded that it is well settled that to establish a *prima facie* case of obviousness, the USPTO must satisfy all of the following requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification must have a reasonable expectation of success, as determined from the vantage point of one of ordinary skill in the art at the time the invention was made. *Amgen v. Chugai Pharmaceutical Co.* 18 USPQ 2d 1016, 1023 (Fed Cir, 1991), *cert. denied* 502 U.S. 856 (1991). Third, the prior art reference or combination of references must teach or suggest all of the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496, (CCPA 1970).

The Examiner concedes that Hoveyda fails to disclose polymeric compounds containing Ru complex catalysts and that Muhlebach teaches the polymeric compounds containing the products of cyclic olefins and ROMP complexes. The Examiner alleges that one of ordinary skill in the art would be motivated to modify Hoveyda in view of Muhlebach. Applicants respectfully disagree.

First and foremost, Hoveyda fails to teach a polymeric compound made up of structural units containing at least one transition metal catalyst as recited in independent Claim 1. Muhlebach fails to cure this deficiency. In particular,

independent Claim 1 is directed to a polymeric compound wherein the polymeric compound has a backbone of formula:



(See general formulas 1a, 1b, and 1c). As claimed, at least one group attached at D is a Ru complex. Applicants continue to assert that Hoveyda fails to teach or suggest a polymeric compound containing at least one transition metal catalyst, and therefore, fails to teach or suggest a polymeric compound having a backbone as described above. Muhlebach merely teaches a process for polymerization of cyclic olefins using heat-stable Ru and Os catalysts and fails to cure this deficiency. The Examiner contends that "Muhlebach teaches, in analogous art, polymer compositions containing products of cyclic olefins and ROMP complexes" pointing to the Abstract and cols 8-11. However, nowhere in the Abstract does Muhlebach teach or suggest a polymeric compound containing at least one transition metal catalyst as recited in independent Claim 1 or a polymeric compound containing any catalyst. Additionally, Muhlebach repeatedly refers to Ru complexes as catalysts (See, for example, Abstract "heat-stable ruthenium or osmium catalyst") for the polymerization of cycloolefins and, as such, the Ru complexes are not a component of the resulting polymer. Consequently, none of the compounds listed in columns 8-11 contain Ru compounds. Accordingly, Hoveyda in view of Muhlebach fails to teach or suggest all of the limitations of independent Claim 1 and fails to render independent Claim 1 obvious.

Furthermore, both Muhlebach and Hoveyda lack a suggestion to combine one with the other (See MPEP 2143.01 I) and teach away from combining these references to form the polymeric compound including at least one structural unit of formula (1a) as suggested by the Examiner. In particular, a catalyst, as is commonly known in the art, increases the rate of a reaction without being consumed. The disclosure of Hoveyda is directed to a "Hyghly [sic] active, recoverable and recyclable transition metal-based metathesis catalysts... including a Ru complex" (See Abstract, emphasis added), and

the Ru complexes of Muhlebach are repeatedly referred to as catalysts (See above). By virtue of the fact that both references refer to Ru complexes as catalysts, these references fail to provide a suggestion to combine and teach against using Ru complexes to produce a polymeric compound including a transition metal catalyst because the catalysts, i.e. the Ru complexes, would be consumed, the Ru complex catalyst of Hoveyda being a component of the polymeric cycloolefin product of Muhlebach. Therefore, this combination of references fails to obviate independent Claim 1.

Moreover, Muhlebach fails to provide motivation to modify Hoveyda because the modification proposed by the Examiner would render the Ru complexes of Hoveyda inoperative (See MPEP 2143.01 V). As described above, Hoveyda teaches "Hyghly [sic] active, recoverable and recyclable transition metal-based metathesis catalysts... including a Ru complex" (See Abstract, emphasis added). Combining the teachings of Muhlebach and Hoveyda to produce a polymeric compound including at least one transition metal catalyst would result in a Ru complex that is trapped in the polymeric cycloolefin product, eliminating the ability of the Ru complexes to be either recovered or recycled and thereby rendering the Ru complexes of Hoveyda unsatisfactory for their intended purpose.

Consequently, contrary to the Examiner's assertion Muhlbach fails to provide motivation to modify Hoveyda at least for the reasons described above. Accordingly, this combination of references fails to render independent Claim 1 obvious.

Claims 3, 5-12, 16 and 17 either directly or indirectly depend from and add further limitations to independent Claim 1 and are respectfully deemed allowable at least for the same reasons in combination with independent Claim1.


**CONCLUSION**

The USPTO is hereby authorized to charge any fees, including any fees for an extension of time or those under 37 CFR 1.16 or 1.17, which may be required by this paper, and/or to credit any overpayments to Deposit Account No. 50-2527.

Applicants respectfully submit that the claims pending in this application are now in condition for allowance. Notice to such effect is earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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